

ABSTRACT

In a plasma processing apparatus that processes a wafer in a process vessel by plasma generated by the supply of a microwave, a transmissive window has, in a center area of its lower surface, a hanging portion made of the same material as a material of the transmissive window. Between an outer peripheral surface of the hanging portion and a sidewall inner surface continuing from a support part, a gap is formed, the gap having a gap length of 0.5 to 10 mm, more preferably 0.5 to 5 mm. The generation of a strong electric field and plasma at a contact point is inhibited and an amount of sputtered particles, radicals, or the like reaching the wafer is also reduced.